

[54] **DEVICE AND METHOD FOR CHEMICAL ANALYSIS OF FLUIDS WITH A REAGENT COATED LIGHT SOURCE**

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[58] Field of Search **436/34, 149, 151, 164, 436/165, 166, 169, 805, 527; 422/55, 56, 57, 58, 68, 69; 128/633, 634, 664, 665; 435/808**

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[57] ABSTRACT

A device for measuring transmittance of light comprises a light source, photodetector and signal processor. The concentration of a substance in a fluid sample can be accurately determined by coating the light source with a reagent that is chemically reactive with the substance and measuring light transmitted from the coating before and after the substance is applied to the coating. The coating can contain a solid support matrix, such as a translucent nonwoven paper web of the type used in reagent test strips and similar indicator devices. The invention is useful for making clinical analyses on body fluids.

8 Claims, 7 Drawing Figures

